

Materials List for:

# Live Cell Imaging during Mechanical Stretch

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## Materials

Name	Company	Catalog Number	Comments
SmartMotor NEMA 34: 3400 Series	MOOG Animatics	SM3416D	Integrated motor, controller, amplifier, encoder and communications bus
Flexcell Membrane (Collagen I coated)	Flexcell International Corp	SM2-1010C	3.5" x 5.25" x 0.020"
Sylgard 184	Dow Corning Corporation		10:1
Hoechst 33342	Sigma-Aldrich	H1399	DAPI stain
MitoSOX	Sigma-Aldrich	M36008	
Tiron	Sigma-Aldrich	D7389	mitochondrial superoxide label
DMEM			superoxide inhibitor
FBS			
HEPES			
50 ml tubes	Fisher Scientific	06-443-19	Any centrifuge tube can be used to create an area for imaging.
Hybridization oven	Bellco Glass		
MLE12 Cells	ATCC	CRL-2110	Mouse Lung Epithelial Cells
16HBE cells	ATCC	CRL-2741	Human Bronchial Epithelial Cells
<b>AFM Indentation Experiments</b>			
Cantilever Beams for Nano-indentation	Budget Sensors	Si-Ni30	
AFM	Asylum Research	MFP3D	
Olympus microscope	Olympus	IX-71	Inverted microscope with 20X and 40X objectives.
AFM Leg Extenders	Asylum Research	Not available	AFM microscope
<b>Finite Element Analyses</b>			
ABAQUS	Simulia	6.12	
<b>Software</b>			
ImageJ	NIH		
<b>Microscopes</b>			
Digital microscope	Life Technologies	EVOS XL Core	Initially a self standing company, now owned by Life Technologies.
Confocal microscope	Zeiss	LSM 710	2-photon upright microscope